

REMARKS

Claims 1 – 21 (as re-numbered) are pending in the present Application. Renumbered claims 14 – 21 have been withdrawn, claim 5 has been canceled, claims 1 and 6-22 have been amended, and no claims have been added, leaving claims 1 – 4 and 6 – 13 for consideration upon entry of the present Amendment. No new matter has been introduced by these amendments.

Renumbering of the Claims

Applicants appreciate the Examiner's re-numbering of the claims to correct the inadvertent omission of a claim 6. These re-numberings have been confirmed by amendment herein. The dependencies of the claims have also been amended to be consistent with the re-numbering.

Amendment to the Specification

The specification has been amended at page 1, lines 3-4, to correct an inadvertent typographical error in the corresponding provisional application.

Please accept the specification as amended to include a Statement Regarding Federally Sponsored Research.

The specification has further been amended on page 5 to include vaporous halogens among the oxidative catalysts that may be used. Antecedent basis for this amendment is found at least in originally filed claim 9 (now re-numbered claim 8).

Response to Restriction Requirement

Applicants hereby confirm the election of claims 1 – 13 for prosecution.

Claim Objections

Claim 8 is objected to based on the limitation "the treated polyurethane foam" having no antecedent basis. Claim 8 has accordingly been amended to recite "an impregnated polymer," which has antecedent basis in the claim.

Claim 12 is objected to under 37 CFR 1.75 (c), as being of improper dependent form for failing to further limit the subject matter of the previous claim. In view of the amendment to claim 8, it is believed that claim 12 is now in proper dependent form, and limits the subject matter of the previous claim.

Reconsideration and removal of the objections to claims 8 and 12 is accordingly respectfully requested.

Claim Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 8 – 10 and 12 – 13 stand rejected under 35 U.S.C. § 112, first paragraph. The examiner states that the specification, “while being enabling for iodine vapor, does not reasonably provide enablement for all vaporous halogens.” (Office Action, p. 4) In particular, the Examiner states that Applicants’ specification “does not mention that other vaporous halogens may be used or provide details as how to use the invention using a halogen other than iodine.” *Id.* Applicants respectfully traverse this rejection.

Applicants agree with the Examiner’s citation of *In re Wright*, which states that enablement requires the specification to teach those of ordinary skill in the art how to make and use the full scope of the claimed invention without ‘undue experimentation’. However, Applicants disagree that determining how to use a vaporous halogen other than iodine would require undue experimentation.

The test of enablement is not whether any experimentation is necessary, but whether, if experimentation is necessary, it is undue. *In re Angstadt*, 537 F.2d 498, 504, 190 U.S.P.Q. 214, 219 (CCPA 1976). The fact that experimentation may be complex does not necessarily make it undue, if the art typically engages in such experimentation. *In re Certain Limited-Charge Cell Culture Microcarriers*, 221 USPQ 1165, 1174 (Int’l Trade Comm’n 1983), *aff’d. sub nom.*, *Massachusetts Institute of Technology v. A.B. Fortia*, 774 F.2d 1104, 227 U.S.P.Q. 428 (Fed. Cir. 1985). Here, the experimentation would not even be complex: it would merely require generating a vapor phase halogen, then following, for example, the procedure set forth in the example described on page 7 of the specification. Generating the vapor phase of a given

halogen is well within the skill of an ordinary practitioner. In any event, the experiment would be no more complex than the experiments typically engaged in by the ordinary practitioner.

In addition, there are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure satisfies the enablement requirement and whether any experimentation is undue. These factors include, for example:

(A) the breadth of the claims; (B) the nature of the invention; (C) the state of the prior art; (D) the level of one of ordinary skill; (E) the level of predictability in the art; (F) the amount of direction provided by the inventor; (G) the existence of working examples; and the quantity of experimentation needed to make or use the invention based on the content of the disclosure.

In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). In *Wands*, the Court held that the specification was enabling with respect to the claims at issue and found that "there was considerable direction and guidance" in the specification; there was "a high level of skill in the art at the time the application was filed;" and "all of the methods needed to practice the invention were well known." 858 F.2d at 740, 8 USPQ2d at 1406.

The situation is very similar here. Claim 9 is directed specifically to halogens, of which iodine is an example. The level of ordinary skill in the art, polymer chemistry, is high. While not entirely predictable in all situations, it is well known that the halogens often have similar characteristics. A working example in the application can be readily adapted to use of other vaporous halogens. And finally, as discussed above, an experiment, if one is even needed, is not complex.

In view of these factors, Applicants respectfully request reconsideration of the rejection of claims 8-10 and 12-13.

Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

Claim 13 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is believed that the amendment to claim 8 as described above renders the rejection of claim 13 moot. Accordingly, reconsideration and allowance of claim 13 is respectfully requested.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1 – 3 and 6 – 7 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by Y Fu, D. Palo, C. Erkey, and R. Weiss, hereinafter “Weiss et al.” It is believed that the amendment to claim 1 as described above renders the rejections of claims 1-3 and 6-7 moot.

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Varient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987). Amended claim 1 and dependent claims 2 – 4 and 6 – 7 recite methods specifically comprising impregnating a polymer with an oxidative catalyst in a vapor phase, wherein impregnating is solventless. Antecedent basis for these amendments is found at least at page 5, lines 10-11, and page 7, lines 19-20. As noted by the Examiner, Weiss uses supercritical carbon dioxide to dissolve the iron-based catalyst. Weiss does not disclose the combination of an oxidative catalyst in a vapor phase with a solventless process. As such, Weiss does not anticipate the claims of the present application. Applicants therefore respectfully request reconsideration of the rejection of the claims.

Objected-to Claims 4 and 8

Applicants appreciate the Examiner’s indication that the subject matter of claims 4 and 11 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. However, as set forth above, Applicants believe that all of the pending claims are allowable.

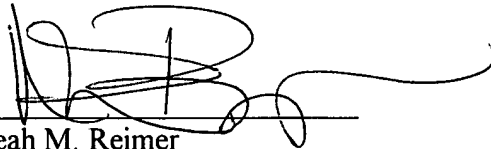
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It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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